

Express Mail No.: EL 501 640 511 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Kingsbury et al.

Serial No.: To Be Assigned Group Art Unit: 1644
(Divisional of Serial No.
09/560,639) Examiner: Roark, J.

Filed: Herewith Attorney Docket No.: 7853-238

For: COMPOSITIONS AND METHODS
FOR THE DIAGNOSIS AND
TREATMENT OF IMMUNE
DISORDERS

09/09/01
U.S. PRO
09/09/01
07/05/01



**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §1.56 AND §1.97**

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure imposed by 37 C.F.R. §1.56 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of subject application, which are or may be material to the patentability of any claim of the application, Attorneys for Applicants hereby direct the Examiner's attention to references AA through DI which are listed on the accompanying revised PTO Form 1449 entitled "List of References Cited by Applicant". Pursuant to 37 C.F.R. §1.98(d), copies of references AA-DI have not been included herewith as such copies are available in parent application Serial No. 09/560,639, filed April 28,

2000. The above-identified application is a divisional of U.S. Patent Application Serial No. 09/560,639, filed April 28, 2000. Applicants will provide copies of references AA-DI upon request by the Examiner.

Identification of the above-listed references is not to be construed as an admission by Applicants or Attorneys for Applicants that such references are available as "prior art" against the subject application. Consequently, Applicants respectfully decline to use form PTO-1449, since that form identifies all of the references cited therein as "Prior Art." As an alternative, Applicants submit herewith a "revised form PTO 1449" entitled "List of References Cited".

Applicants respectfully request that the Examiner review all the references identified on the attached revised PTO Form 1449, and that they be made of record in the file history of the above-identified application.

This Information Disclosure Statement is being filed before the mailing date of the first Office Action on the merits; therefore, Applicants estimate that no fee is required. If a fee is required, please charge the required fee to Pennie & Edmonds LLP Deposit Account No. 16-1150.

Respectfully submitted,

Date: July 6, 2001

Laura A. Coruzzi 30,742
Laura A. Coruzzi (Reg. No.)

PENNIE & EDMONDS LLP
1155 Avenue of the Americas
New York, New York 10036-2711
(212) 790-9090

by: Jennifer J. Chakera
Reg. No. 46,617

LIST OF REFERENCES CITED BY APPLICANT <i>(Use several sheets if necessary)</i>		ATTY. DOCKET NO. 7853-238	APPLICATION NO. TBA
		APPLICANT Kingsbury et al.	
		FILING DATE Herewith	GROUP 1644

JC88-09/099980
07/06/1981

LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AA		5,840,691	11/24/98	Furcht et al.			
AB		5,721,351	2/24/98	Levinson			
AC		5,591,719	1/7/97	Furcht et al.			
AD		5,262,311	11/16/93	Pardee and Liang			
AE		5,116,964	5/26/92	Capon and Lasky			

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AF	WO 99/15663	4/1/99	PCT				
	AG	WO 97/42224	11/13/97	PCT				
	AH	JP 6-178687	6/28/94	Japan				
	AI	EP 239400	8/3/94	EPO				

OTHER REFERENCES (*Including Author, Title, Date, Pertinent Pages, Etc.*)

	AJ	GenBank Accession No. E07714 (cDNA encoding mouse ST2 protein)
	AK	GenBank Accession No. P14719 (mouse ST2 protein precursor)
	AL	GenBank Accession No. E08652 (cDNA encoding mouse ST2L)
	AM	GenBank Accession No. S29498 (mouse ST2L protein)
	AN	GenBank Accession No. AB012701 (human mRNA for ST2L, 5"noncoding region incl. exon 1a, complete cds)
	AO	GenBank Accession No. BAA82405 (human ST2L protein)
	AP	GenBank Accession No. D12763 (human mRNA for ST2L protein)
	AQ	GenBank Accession No. BAA0223 (human ST2 protein)
	AR	GenBank Accession No. AB029084 (human ST2V mRNA, complete cds)
	AS	GenBank Accession No. BAA85894 (human ST2V)
	AT	GenBank Accession No. Y07519 (mouse St2 gene)
	AU	GenBank Accession No. M28621 (mouse interferon- γ mRNA sequence)
	AV	Altschul et al., 1997, "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucl Acids Res 25:3389-3402
	AW	Altschul et al., 1990, "Basic Local Alignment Search Tool", J. Mol. Biol. 215:403-410
	AX	Anderson and Coyle, 1994, "TH2 and 'TH2-like' cells in allergy and asthma: pharmacological perspectives", Trends Pharmacol. Sci. 15:324-332

	AY	Aruffo et al., 1990, "CD44 is the principal cell surface receptor for hyaluronate", <i>Cell</i> <u>61</u> :1303-1313
	AZ	Bergers et al., 1994, "Alternative promoter usage of the Fos-responsive gene <i>Fit-1</i> generates mRNA isoforms coding for either secreted or membrane-bound proteins related to the IL-1 receptor", <i>EMBO J.</i> <u>13</u> :1176-1188
	BA	Chen et al., 1993, "RAG-2-deficient blastocyst complementation: an assay of gene function in lymphocyte development", <i>Proc. Natl. Acad. Sci. USA</i> <u>90</u> :4528-4532
	BB	Clerici et al., 1993, "Restoration of HIV-specific cell-mediated immune responses by interleukin-12 in vitro", <i>Science</i> <u>262</u> :1721-1724
	BC	Clerici et al., 1993, "Changes in interleukin-2 and interleukin-4 production in asymptomatic, human immunodeficiency virus-seropositive individuals", <i>J. Clin. Invest.</i> <u>91</u> :759-765
	BD	Cohn et al., 1997, "Induction of airway mucus production by T helper 2 (Th2) cells: a critical role for interleukin 4 in cell recruitment but not mucus production", <i>J. Exp. Med.</i> <u>186</u> :1737-1747
	BE	Del Prete et al., 1991, "Purified protein derivative of <i>Mycobacterium tuberculosis</i> and excretory-secretory antigen(s) of <i>Toxocara canis</i> expand in vitro human T cells with stable and opposite (Type 1 T helper or Type 2 T helper) profile of cytokine production", <i>J. Clin. Invest.</i> <u>88</u> :346-350
	BF	Fägerstam et al., 1992, "Biospecific interaction analysis using surface plasmon resonance detection applied to kinetic, binding site and concentration analysis", <i>J. Chromatog.</i> <u>597</u> :397-410
	BG	Firestein et al., 1989, "A new murine CD4 ⁺ T cell subset with an unrestricted cytokine profile", <i>J. Immunol.</i> <u>143</u> :518-525
	BH	Frangogiannis et al., 1998, "Resident cardiac mast cells degranulate and release preformed TNF- α initiating the cytokine cascade in experimental canine myocardial ischemia/reperfusion", <i>Circulation</i> <u>98</u> :699-710
	BI	Gächter et al., 1996, "Transcription of the interleukin-1 receptor-related T1 gene is initiated at different promoters in mast cells and fibroblasts", <i>J. Biol. Chem.</i> <u>271</u> :124-129
	BJ	Gavett et al., 1994, "Depletion of murine CD4 ⁺ T lymphocytes prevents antigen-induced airway hyperreactivity and pulmonary eosinophilia", <i>Am. J. Respir Cell Mol. Biol.</i> <u>10</u> :587-593
	BK	George et al., 1994, "Embryonic expression and cloning of the murine GATA-3 gene", <i>Development</i> <u>120</u> :2673-2686
	BL	Gonazlo et al., 1996, "Mouse eotaxin expression parallels eosinophil accumulation during lung allergic inflammation but it is not restricted to a Th2-type response", <i>Immunity</i> <u>4</u> :1-14
	BM	Gu et al., 1994, "Deletion of a DNA polymerase β gene segment in T cells using cell type-specific gene targeting", <i>Science</i> <u>265</u> :103-106
	BN	Hamelmann et al., 1997, "Noninvasive measurement of airway responsiveness in allergic mice using barometric plethysmography", <i>Am. J. Respir. Crit. Care Med.</i> <u>156</u> :766-775
	BO	Holgate, 1997, "The cellular and mediator basis of asthma in relation to natural history", <i>Lancet</i> <u>350</u> (Suppl. 2):5-9
	BP	Kanagawa et al., 1993, "Resistance of mice deficient in IL-4 to retrovirus-induced immunodeficiency syndrome (MAIDS)", <i>Science</i> <u>262</u> :240-242
	BQ	Kaneshima et al., 1994, "Human hematolymphoid cells in SCID mice", <i>Curr. Opin. Immunol.</i> <u>6</u> :327-333

BR	Karin and Altschul, 1993, "Applications and statistics for multiple high-scoring segments in molecular sequences", Proc. Natl. Acad. Sci. USA <u>90</u> :5873-5877
BS	Karin and Altschul, 1990, "Methods for assessing the statistical significance of molecular sequence features by using general scoring schemes", Proc Natl Acad Sci USA <u>87</u> :2264-2268
BT	Klemenz et al., 1989, "Serum- and oncoprotein-mediated induction of a gene with sequence similarity to the gene encoding carcinoembryonic antigen", Proc. Natl. Acad. Sci. USA <u>86</u> :5708-5712
BU	Ko and Engel, 1993, "DNA binding specificities of the GATA transcription factor family", Mol. Cell. Biol. <u>13</u> :4011-4022
BV	Kumar et al., 1997, "Expression of ST2, an interleukin-1 receptor homologue, is induced by proinflammatory stimuli", Biochem. Biophys. Res. Comm. <u>235</u> :474-478
BW	Liew, 1994, "Induction and regulation of CD4 ⁺ T cell subsets", CIBA Foundation Symposium <u>87</u> :170-178
BX	Löhning et al., 1998, "T1/ST2 is preferentially expressed on murine Th2 cells, independent of interleukin 4, interleukin 5, and interleukin 10, and important for Th2 effector function", Proc. Natl. Acad. Sci. USA <u>95</u> :6930-6935
BY	Lukacs et al., 1994, "Interleukin-4-dependent pulmonary eosinophil infiltration in a murine model of asthma", Am. J. Respir. Cell Mol. Biol. <u>10</u> :526-532
BZ	Maggi et al., 1994, "Th2-like CD8 ⁺ T cells showing B cell helper function and reduced cytolytic activity in human immunodeficiency virus type 1 infection", J. Exp. Med. <u>180</u> :489-495
CA	Maggi et al., 1994, "Ability of HIV to promote a T _H 1 to T _H 0 shift and to replicate preferentially in T _H 2 to T _H 0 cells", Science <u>265</u> :244-248
CB	Makino et al., 1990, "H-2-associated and background genes influence the development of a murine retrovirus-induced immunodeficiency syndrome", J. Immunol. <u>144</u> :4347-4355
CC	Manetti et al., 1994, "CD30 expression by CD8 ⁺ T cells producing type 2 helper cytokines. Evidence for large numbers of CD8 ⁺ CD30 ⁺ T cell clones in human immunodeficiency virus infection", J. Exp. Med. <u>180</u> :2407-2411
CD	McMahan et al., 1991, "A novel IL-1 receptor, cloned from B cells by mammalian expression, is expressed in many cell types", EMBO J. <u>10</u> :2821-2832
CE	Metzler and Xu, 1997, "The role of mast cells in atherosclerosis", Int. Arch. Allergy Immunol. <u>114</u> :10-14
CF	Moll et al., 1991, "Expression of T-cell-associated serine proteinase 1 during murine <i>Leishmania major</i> infection correlates with susceptibility to disease", Infect. Immun. <u>59</u> :4701-4705
CG	Mosmann and Moore, 1991, "The role of IL-10 in crossregulation of T _H 1 and T _H 2 responses", Immunol Today <u>12</u> :A49-A53
CH	Mosmann and Coffman, 1989, "TH1 and TH2 cells: Different patterns of lymphokine secretion lead to different functional properties", Annu. Rev. Immunol. <u>7</u> :145-173
CI	Murphy et al., 1990, "Induction by antigen of intrathymic apoptosis of CD4 ⁺ CD8 ⁺ TCR ^{lo} thymocytes in vivo", Science <u>250</u> :1720-1723
CJ	Myers and Miller, 1988, "Optimal Alignments in Linear Space", Comput. Appl. Biosci. <u>4</u> :11-17

CK	Oettgen and Gheia, 1999, "IgE in asthma and atopy: cellular and molecular connections", <i>J. Clin. Invest.</i> <u>104</u> :829-835
CL	Ohashi et al., 1992, "Airway hyperresponsiveness, increased intracellular spaces of bronchial epithelium, and increased infiltration of eosinophils and lymphocytes in bronchial mucosa in asthma", <i>Am. Rev Respir. Dis.</i> <u>145</u> :1469-1476
CM	Ray and Cohn, 1999, "Th2 cells and GATA-3 in asthma: new insights into the regulation of airway inflammation", <i>J. Clin. Invest.</i> <u>104</u> :985-993
CN	Robinson et al., 1993, "Activation of CD4 ⁺ T cells, increased T _{H2} -type cytokine mRNA expression, eosinophil recruitment in bronchoalveolar lavage after allergen inhalation challenge in patients with atopic asthma", <i>J. Allergy Clin. Immunol.</i> <u>92</u> :313-324
CO	Romagnani, 1997, "The Th1/Th2 paradigm", <i>Immunol. Today</i> <u>18</u> :263-266
CP	Schweitzer and Sharpe, 1998, "Studies using antigen-presenting cells lacking expression of both B7-1 (CD80) and B7-2 (CD86) show distinct requirements for B7 molecules during priming versus restimulation of Th2 but not Th1 cytokine production", <i>J. Immunol.</i> <u>161</u> :2762-2771
CQ	Seder et al., 1994, "CD28-mediated costimulation of interleukin 2 (IL-2) production plays a critical role in T cell priming for IL-4 and interferon- γ production", <i>J. Exp. Med.</i> <u>179</u> :299-304
CR	Seder and Gros, 1995, "The functional role of CD8 ⁺ T helper type 2 cells", <i>J. Exp. Med.</i> <u>181</u> :5-7
CS	Shinkai et al., 1992, "RAG-2-deficient mice lack mature lymphocytes owing to inability to initiate V(D)J rearrangement", <i>Cell</i> <u>68</u> :855-867
CT	Tepper et al., 1990, "IL-4 induces allergic-like inflammatory disease and alters T cell development in transgenic mice", <i>Cell</i> <u>62</u> :457-467
CU	Tominaga et al., 1999, "Presence and expression of a novel variant form of ST2 gene product in human leukemic cell line UT-7/GM", <i>Biochem. Biophys. Res. Comm.</i> <u>264</u> :14-18
CV	Tominaga et al., 1992, "Nucleotide sequence of a complementary DNA for human ST2", <i>Biochim. Biophys. Acta</i> <u>1171</u> :215-218
CW	Tominaga et al., 1991, "Molecular cloning of the murine ST2 gene. Characterization and chromosomal mapping", <i>Biochim. Biophys. Acta</i> <u>1090</u> :1-8
CX	Tominaga, 1989, "A putative protein of a growth specific cDNA from BALB/c-3T3 cells is highly similar to the extracellular portion of mouse interleukin 1 receptor", <i>FEBS Lett.</i> <u>258</u> :301-304
CY	Tsuyuki et al., 1997, "Costimulation through B7-2 (CD86) is required for the induction of a lung mucosal T helper cell 2 (Th2) immune response and altered airway responsiveness", <i>J. Exp. Med.</i> <u>185</u> :1671-1679
CZ	Volmer et al., 1994, "T lymphocytes derived from skin lesions of patients with psoriasis vulgaris express a novel cytokine pattern that is distinct from that of T helper type 2 cells", <i>Eur. J. Immunol.</i> <u>24</u> :2377-2382
DA	Wang et al., 1992, "IL-4 activates a distinct signal transduction cascade from IL-3 in factor-dependent myeloid cells", <i>EMBO J.</i> <u>11</u> :4899-4908
DB	Werenskiold, 1992, "Characterization of a secreted glycoprotein of the immunoglobulin superfamily inducible by mitogen and oncogene", <i>Eur. J. Biochem.</i> <u>204</u> :1041-1047
DC	Werenskiold et al., 1989, "Induction of a mitogen-responsive gene after expression of the Ha-ras oncogene in NIH 3T3 fibroblasts", <i>Mol. Cell. Biol.</i> <u>9</u> :5207-5214

	DD	Wierenga et al., 1990, "Evidence for compartmentalization of functional subsets of CD4 ⁺ T lymphocytes in atopic patients", J. Immunol. <u>144</u> :4651-4656
	DE	Yamamura et al., 1991, "Defining protective responses to pathogens: Cytokine profiles in leprosy lesions", Science <u>254</u> :277-279
	DF	Yanagisawa et al., 1993, "Presence of a novel primary response gene ST2L, encoding a product highly similar to the interleukin 1 receptor type 1", FEBS Lett. <u>318</u> :83-87
	DG	Young et al., 1992, "Expression of cytolytic mediators by synovial fluid lymphocytes in rheumatoid arthritis", Am. J. Path. <u>140</u> :1261-1268
	DH	Zheng and Flavell, 1997, "The transcription factor GATA-3 is necessary and sufficient for Th2 cytokine gene expression in CD4 T cells", Cell <u>89</u> :587-596
	DI	GenBank Accession No. E07716, cDNA encoding human ST2, published June 1994

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.